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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 12/28/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,330

Applicant(s)

LANG, ERIC G.

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-22 and 26-35 is/are rejected.
- 7) ☒ Claim(s) 11-13, 23-25 and 36-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Application has been examined. The claims 1-38 are pending. The examination results are as following.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by King et al. (US 6,286,064).

Regarding claim 1, King et al. discloses in figures 8A, 8C, 8D that a method for inputting information in an information processing device having a multiple axes input key movable in M multi-axial directions keystroke (see figure 8D, see four directions when pressed on one of four keytop regions 842, see column 33, lines 21-28), the method comprising the acts of moving the key in one of the M multi-axial directions to generate N selection strokes (see four different directions); repeating the act of moving the key N number of times to generate N selection, a pattern of N selection strokes with each stroke being in one of M multi-axial directions defining the information to be input to the information processing device (see figure 8C, 8D, see column 33, lines 21-28).

Regarding claims 2-8, King et al. discloses in figures 8A-8D that wherein each act of moving comprises a selected subset of information from a set of information (see figure 8C), and wherein the set of information is a set of characters and set of characters are numeric characters, or alphabetic characters (see figure 8C), and wherein the information processing device has a display screen (53, see figure 5) to display each subset of information of the input key (see figure 8C).

3. Claims 9-10, 14-22 and 26-35 are rejected under 35 U.S.C. 102(e) as being anticipated by Kivela et al. (6,052,070).

Regarding claim 9, Kivela et al. discloses in figure 1, that a method for interpreting a sequence of input by a multiple axes input key (see, see rocker key type up, down, left, right 32, 33, 34, column 4, lines 9-15) to input method comprising drawing a display (39) of the selectable information element set in a pattern illustrating input key stroke direction from movement of the input key; detecting a multi-axial key stroke (56) direction from movement of the input key; identifying from the key stroke direction a selected subset of the of the selectable information element (see figure 1); repeating the detecting action and identifying action for a predetermined number of strokes by the input key so that the identifying step after the last stroke of the input key identifies selected information element to be loaded into the computing system (see figure1).

Regarding claim 10, Kivela et al. discloses that the method further comprises loading the selected information element into a user input string for the computing system (see abstract).

Regarding claims 14-19, Kivela et al. also discloses that the displaying an information element set of selectable elements for input into the computing system to illustrate subsets of

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information elements selectable with each directional stroke (see figure 1); updating the subset of the information elements displayed by said displaying action based on the directional stroke entered by the entering action as discussed above.

4. Regarding claims 20-22, 26-27 and 32-35, Kivela et al. discloses in figure 1 that a computing system (31) for interpreting directional strokes from a multiple axis input button (see rocker 32, 33, 34) to enter information into the computing system comprising a display processor (39) drawing a display page for display screen, the display page containing information elements (0-9) arranged in a pattern to guide selection of information elements by directional strokes of the input button; an input adapter detecting directional strokes by the input button; a stroke processor (rocker 32) identifying an information element for entry in the computing system, the information element (0-9) identified based on a sequence of directional strokes detected.

Regarding claims 21-22, 26-27 and 32-35, Kivela et al. discloses the computer system wherein the stroke processor (31) comprises information element array (0-9) storing the information elements as a hierarchy with a level of the hierarchy associated with each stroke; a select array to identify a selected information element (see figure 1), and drawing a display (39) of the selectable information element set in a pattern illustrating input key stroke direction from movement of the input key; detecting a multi-axial key stroke direction from movement of the input key (32, 33, 34); identifying from the key stroke direction a selected subset of the of the selectable information element (see figure 1); repeating the detecting action and identifying action for a predetermined number of strokes by the input key so that the identifying step after

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the last stroke of the input key identifies selected information element to be loaded into the computing system (see figure1) as discussed above.

Allowable Subject Matter

5. Claims 11-13, 23-25 and 36-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The present invention is directed to a method for a sequence of input strokes by a multi-directional input key to input an information element into computing system. The closest prior art, King et al, (6,286,064), and Kiveka et al. (6,052,070) disclose a conventional sequence stroke keyboard to the computer system. However, they fail to teach that wherein the number of strokes N is given by logarithmic value of the number of the information elements in the information element set to a base M where M is the number of directional strokes available from the input key as claim 11, or wherein the number of strokes in a sequence to select an information element is given by the expression $N = \log(M).E$ where N is the number of strokes, M is the number of possible directions for each stroke of the input button, and E is the number of information elements in the information element set from which a desired information element is selected as claims 23, 36.

Response To Arguments

4. Applicant's arguments with respect to claims 1, 9, 15, 20, 26 and 32 filed on 4-17-04 have been considered but are moot in view of the new ground(s) of rejection.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, VA Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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Kimnhung Nguyen
December 21, 2004

A handwritten signature in black ink, appearing to read 'Alexander Eisen', written in a cursive style.

ALEXANDER EISEN
PRIMARY EXAMINER
TECHNOLOGY CENTER 2600